

California Regional Water Quality Control Board
North Coast Region

ORDER NO. R1-2003-0095
I.D. NO. 1B03123RHUM

WASTE DISCHARGE REQUIREMENTS

FOR

CITY OF RIO DELL
AND
DUANE AND CHERIE PRIMOFIORE

BIOSOLIDS DISPOSAL FACILITY

Humboldt County

The California Regional Water Quality Control Board, North Coast Region (hereinafter the Regional Water Board), finds that:

1. On June 23, 2003, the City of Rio Dell (City) filed a Report of Waste Discharge describing a program to land-apply biosolids from its municipal wastewater treatment facility (WWTF) located in the City of Rio Dell, Humboldt County, California. Supplemental information was submitted on July 25, 2003, and July 31, 2003.
2. The City owns and operates a WWTF that provides conventional secondary treatment for the City's municipal wastewater. Solids resulting from the secondary treatment process are treated in aerobic digesters. Digested sludge is dewatered and stockpiled in drying beds prior to land application. Other collected screenings and solids removed from liquid wastes are disposed at a municipal solid waste landfill.
3. The City's WWTF currently is regulated under Waste Discharge Requirements Order No. R1-2000-0015, NPDES Permit No. CA0022748, adopted by the Regional Water Board on February 24, 2000. Cease and Desist Order No. R1-2003-0046, adopted on May 15, 2003, includes a sewer connection restriction and time schedule provisions requiring the City to implement a long-term disposal option for biosolids and obtain the necessary permits and/or approval for the site by May 15, 2004. Biosolids application handling and disposal methods outlined in the City's Report of Waste Discharge meet the biosolids management provision for achieving compliance with task "D" of Cease and Desist Order No. R1-2003-0046.

4. The City contracted with Redway Community Services District (CSD) in 2001 to apply biosolids to the CSD's permitted disposal site. On May 6, 2003, the City secured a ten-year agreement to use a property located on the Dinsmore plateau on the western edge of the City for a biosolids disposal site. The site is owned by Duane and Cherie Primofiore, 628 Monument Road, Rio Dell, California and is designated as Assessor's Parcel Number 205-071-037, as shown in "Attachment A" incorporated herein and made a part of this Order. The City of Rio Dell and Duane and Cherie Primofiore hereinafter are referred to as the discharger.
5. Biosolids will be land-applied at agronomic rates on twenty-five acres of agricultural lands. Best management practices, based on State and Federal requirements, will be employed by the City and the landowner to prevent a condition of pollution or nuisance. Surface runoff from the parcel could discharge into the Eel River at Rio Dell. Rain water or irrigation water percolating through the biosolids application area could reach areal groundwater.
6. Biosolids are a source of organic matter, nitrogen, phosphorus, and micronutrients. These materials are beneficial to agriculture, silviculture, horticulture, and land reclamation activities and they improve agricultural productivity. Biosolids can create water quality and public health problems if improperly treated, managed, or regulated during use as a soil amendment.
7. The U.S. Environmental Protection Agency (U.S. EPA) has promulgated regulations at 40 CFR 503 for the use of biosolids as a soil amendment. These regulations establish ceiling concentrations for metals and reduction standards for pathogen and vector attraction; management criteria for the protection of water quality and public health; and annual and cumulative discharge limitations of persistent pollutants, such as heavy metals, to land for the protection of livestock, crops, and human health and water quality protection.
8. The discharger shall submit an annual fee, pursuant to Section 13260, CWC. The amount of the fee is currently determined by the type of order issued and the threat to water quality and complexity of the specific discharger, as detailed in Section 2200, Chapter 9, Division 3, Title 23, California Code of Regulations (CCR). Biosolids projects consisting of less than 40 acres are deemed Category "III" threat to water quality rating and a Category "B" complexity rating. An application fee of \$900, equal to the current annual fee, was submitted to the Regional Water Board on July 18, 2003.

9. This Order sets minimum standards for the use of biosolids as a soil amendment on an agricultural site and does not preempt or supersede the authority of local agencies to prohibit, restrict, or control the use of biosolids subject to their control, as allowed under current law. It is the responsibility of the discharger to make inquiry and obtain any local governmental agency permits or authorizations prior to the application of biosolids at the site.
10. The biosolids applied to land under this Order are nonhazardous, decomposable wastes applied as a soil amendment pursuant to best management practices and, as such, are exempt from the requirements of Title 27, CCR, in accordance with Section 20090.
11. The City adopted a Notice of Exemption (Categorical Exemption, Class 4, Title 14, California Code of Regulations, Section 15304) for land application of biosolids on July 31, 2003, to satisfy the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.). The Regional Water Board has independently considered the Notice of Exemption and has also determined that the project authorized by this Order qualifies for that exemption.
12. The Water Quality Control Plan for the North Coast Region (Basin Plan) includes water quality objectives, implementation plans for point source and nonpoint source discharges, prohibitions, and statewide plans and policies.
13. Beneficial uses of the Eel River include:
 - a. municipal and domestic supply
 - b. agricultural supply
 - c. industrial service supply
 - d. groundwater recharge
 - e. navigation
 - f. hydropower generation
 - g. water contact recreation
 - h. noncontact water recreation
 - i. sport and commercial fishing
 - j. warm freshwater habitat
 - k. cold freshwater habitat
 - l. wildlife habitat
 - m. preservation of rare, threatened, or endangered species
 - n. migration of aquatic organisms
 - o. spawning, reproduction, and/or early development
 - p. estuarine habitat
 - q. aquaculture

14. Existing and potential beneficial uses of areal groundwater include:
 - a. domestic water supply
 - b. agricultural water supply
 - c. industrial service supply
 - d. industrial process supply
15. The permitted discharge is consistent with the antidegradation provision of 40 CFR 131.12 and State Water Resources Control Board Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California*. The impact on existing water quality will be insignificant.
16. The Eel River Delta is listed as an impaired water body for sediment and temperature pursuant to Section 303(d) of the CWA. A Total Maximum Daily Load has not been established to address sediment loading or temperature and is not scheduled for completion until 2006. An analysis of the discharge determined that it does not contain constituents at levels that will cause, have the reasonable potential to cause, or contribute to increases in sediment levels or a change in temperature to the Eel River.
17. The Regional Water Board has notified the discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations.
18. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.

THEREFORE, IT IS HEREBY ORDERED that the discharger, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. PROHIBITIONS

1. Application of biosolids shall be confined to the designated disposal area described in Finding No. 4 and shown in Attachment "A" of this Order.
2. The discharge of any waste not specifically regulated by this Order is prohibited.
3. Treatment, storage, and disposal of biosolids in a manner that creates a condition of pollution, contamination, or nuisance, as defined by Section

13050 of the California Water Code (CWC), is prohibited. [Health and Safety Code, Section 5411]

4. The discharge of biosolids from the storage or application areas to adjacent land areas not regulated by this Order, to surface waters, or to surface water drainage courses is prohibited.
5. Application of any material that results in a violation of the Safe Drinking Water and Toxic Enforcement Act (Health and Safety Code Section 25249.5) is prohibited.
6. Irrigation water runoff from the biosolids application site is prohibited.
7. The discharge of biosolids except as authorized by this Order for storage, processing, and application is prohibited.
8. The discharge of “hazardous waste” as defined in Chapter 11, Division 4.5, Title 22 of the CCR, is prohibited.
9. Application of biosolids with metals concentrations greater than those shown below is prohibited.

Constituent	Concentration
	mg/kg (dry weight)
Arsenic	75
Cadmium	85
Copper	4,300
Lead	840
Mercury	57
Molybdenum	75
Nickel	420
Selenium	100
Zinc	7,500

10. Application of biosolids to water-saturated ground is prohibited.
11. Application of biosolids in areas where biosolids are subject to erosion offsite is prohibited.
12. Application of biosolids from sources other than the City of Rio Dell WWTF is prohibited.
13. Production of food crops on the application area is prohibited.

14. Biosolids shall not be applied to land having a slope greater than 15 percent.
15. Application of biosolids at times when wind may cause the biosolids to be discharged outside of the setback areas delineated in **B. LAND APPLICATION SPECIFICATIONS** 2g is prohibited.

B. LAND APPLICATION SPECIFICATIONS

1. Use and disposal of biosolids shall comply with existing Federal and State laws and regulations, including permitting requirements and technical standards contained in 40 CFR 503.
2. Disposal of biosolids at the land application site shown in Attachment "A" shall be accomplished within the following limits:
 - a. Biosolids shall be applied at, or below, the agronomic needs of the crops.
 - b. The pH of the soil (top 12 inches) within the biosolids application area shall be 6.5 or above, as measured at the time of application.
 - c. Metals loading rates to the application area shall not exceed:

Constituent	Annual Load Rate	Lifetime Loading
	kg/ha (dry weight)	kg/ha (dry weight)
Arsenic	2	41
Cadmium	1.9	39
Copper	75	1,500
Lead	15	300
Mercury	0.85	17
Nickel	21	420
Selenium	5.0	100
Zinc	140	2,800

- d. When the cumulative annual loading plus natural background levels in the upper 12 inches of the soil column reaches the lifetime loading limit for any metal listed in subsection 2c, use of the biosolids application site shall be terminated.

- e. Biosolids application shall be limited to the dry season of the year which, for purposes of this Order, is defined as May 1 to October 15. Biosolids shall not be applied if rainfall is expected prior to completing the application and incorporation activities. Biosolids shall be incorporated within 48 hours after application.
- f. Biosolids shall not be applied to land when the distance from the incorporation depth to groundwater is 5 feet or less.
- g. The following setbacks from the biosolids disposal area shall apply:

Property Lines	10 feet
Drainage Conveyance	33 feet
Surface Water	100 feet
Domestic Water Supply Wells	500 feet
Non Domestic Water Supply Wells	100 feet
Dwellings	500 feet
Public Roadways	200 feet

- 3. After an application of biosolids in any field, the discharger shall ensure the following:
 - a. For at least 30 days:
 - (1) Public access to the application site is restricted;
 - (2) Food, feed, and fiber crops are not harvested; and
 - (3) Animals are not grazed.
 - b. For at least 12 months:
 - (1) Turf is not to be harvested if the harvested turf is placed on land with a high potential for contact by the public as defined in 40 CFR 503.11; and
 - (2) Grazing of milking animals used for producing unpasteurized milk for human consumption is prevented.
- 4. Incorporation of biosolids into the soil shall be conducted in a manner which minimizes erosion of soils from the application site by wind, storm water, or irrigation water.
- 5. All biosolids shall be transported in covered vehicles capable of containing the designated load.

6. All biosolids having a moisture content that is high enough to allow liquid discharge shall be transported in leak-proof vehicles.
7. All biosolids transport drivers shall be trained as to the nature of their load and the proper response to accidents or spill events and shall carry a copy of a Regional Water Board approved spill response plan.

C. SOLIDS DISPOSAL

1. All collected screenings, sludges, and other solids removed from liquid wastes that are not applied to the land application site shown in Attachment "A" of this Order shall be disposed at a legal point of disposal, and in accordance with applicable provisions of Title 27, Division 3, CCR.
2. All the requirements in 40 CFR 503 are enforceable by U.S. EPA whether or not they are stated in Waste Discharge Requirements or other permits issued to the discharger. The Regional Water Board shall be copied on relevant correspondence and reports forwarded to the U.S. EPA regarding biosolids management practices.
3. Biosolids that are applied to land as soil amendment shall meet pollutant ceiling concentrations and pollutant concentrations, pathogen reduction and vector attraction reduction requirements, and annual and cumulative discharge limitations of 40 CFR Part 503.
4. The discharger is responsible for ensuring compliance with these regulations whether the discharger uses or disposes of the biosolids itself or contracts with another party for further treatment, use, or disposal. The discharger is responsible for informing subsequent preparers, applicators, and disposers of the requirements that they must meet under 40 CFR Parts 257, 258, and 503.
5. The discharger shall take all reasonable steps to prevent and minimize any biosolids use or disposal in violation of this Order that has a likelihood of adversely affecting human health or the environment.
6. The solids and biosolids treatment and storage site shall have facilities adequate to divert surface water runoff from adjacent areas, to protect the boundaries of the site from erosion, and to prevent drainage from the treatment and storage site. Adequate protection is defined as protection from at least a 100-year storm.
7. The discharge of biosolids and solids shall not cause waste material to be in a position where it is, or can be, conveyed from the treatment and storage sites and deposited in the waters of the state.

D. PROVISIONS

1. Within this Order, terms that define different stages of solids that are removed from the treatment process are described as follows:

Sewage Sludge: The solid, semisolid, or liquid residue generated during the treatment of domestic sewage in a municipal wastewater treatment facility. Sewage sludge includes solids removed or used during primary, secondary or advanced wastewater treatment processes. Sewage sludge does not include grit or screening material generated during preliminary treatment of domestic sewage at a municipal wastewater treatment facility.

Biosolids: Sewage sludge that has been treated and tested and shown to be capable of being beneficially and legally used as a soil amendment for agriculture, silviculture, horticulture, and land reclamation activities as specified under 40 Code of Federal Regulations (CFR) Part 503. For the purposes of this Order, "biosolids" does not include septage.

2. A copy of this Order shall be maintained at the WWTF and land application site and be available at all times to operating personnel.
3. Provisions of this Order are severable. If any provision of these requirements is found invalid, the remainder of these requirements shall not be affected.
4. The discharger shall maintain in good working order and operate as efficiently as possible any facility or control system installed by the discharger to achieve compliance with this Order.
5. The discharger shall promptly report to the Regional Water Board any material change in the character, location, or volume of the discharge.
6. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the following items by letter, a copy of which shall be forwarded to the Regional Water Board:
 - a. existence of this Order, and
 - b. the status of the dischargers' annual fee account
7. This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, nor protect the discharger from his liability under Federal, State, or local laws, nor create a vested right for the discharger to continue the waste discharge.

8. The discharger must comply with the Contingency Planning and Notification Requirements Order No. 74-151 and the Monitoring and Reporting Program No. R1-2003-0095 and any modifications to these documents as specified by the Executive Officer. Such documents are attached to this Order and incorporated herein. Chemical, bacteriological, and bioassay analyses must be conducted at a laboratory certified for such analyses by the State Department of Health Services.
9. Signatory Requirements
 - a. All Report of Waste Discharge applications submitted to the Regional Water Board shall be signed by either a principal executive officer, ranking elected official, or a responsible corporate officer. For purposes of this provision, a responsible corporate officer means:
 - i. a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation; or
 - ii. the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
 - b. Reports required by this Order and other information requested by the Regional Water Board may be signed by a duly authorized representative provided:
 - i. the authorization is made in writing by a person described in paragraph (a) of this provision;
 - ii. the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company; and

iii. the written authorization is submitted to the Regional Water Board prior to or together with any reports, information, or applications signed by the authorized representative. [40 CFR 122.22(b)(c)]

c. Any person signing a document under paragraph (a) or (b) of this provision shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted, is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." [40 CFR 122.22(d)]

10. The discharger shall permit authorized staff of the Regional Water Board:

- a. entry upon premises in which an effluent source is located or in which any required records are kept;
- b. access to copy any records required to be kept under terms and conditions of this Order;
- c. inspection of monitoring equipment or records; and
- d. sampling of any discharge.

11. In the event the discharger is unable to comply with any of the conditions of this Order due to:

- a. breakdown of waste treatment equipment;
- b. accidents caused by human error or negligence; or
- c. other causes such as acts of nature;

the discharger shall notify the Executive Officer by telephone as soon as he or his agents have knowledge of the incident and confirm this notification in writing within two weeks of the telephone notification. The written notification shall include pertinent information explaining reasons for the noncompliance and shall indicate the steps taken to correct the problem and the dates thereof, and the steps being taken to prevent the problem from recurring.

12. This Regional Water Board requires the discharger to file a report of waste discharge at least 120 days before making any material change or proposed change in the character, location, or volume of the discharge.

Certification

I, Catherine E. Kuhlman, Executive Officer, do hereby
Certify that the foregoing is a full, true, and correct
Copy of an Order adopted by the California
Regional Water Quality Control Board, North Coast
Region, on September 24, 2003.

Catherine E. Kuhlman
Executive Officer